

**IN THE UNITED STATES DISTRICT COURT  
FOR THE EASTERN DISTRICT OF TEXAS  
MARSHALL DIVISION**

TQ DELTA, LLC,

*Plaintiff,*

v.

COMMSCOPE HOLDING COMPANY,  
INC., COMMSCOPE, INC., ARRIS US  
HOLDINGS, INC., ARRIS SOLUTIONS,  
INC., ARRIS TECHNOLOGY, INC., and  
ARRIS ENTERPRISES, LLC,

*Defendants.*

Civil Action No.: 2:21-cv-00310-JRG

**COMMSCOPE'S SUR-REPLY TO PLAINTIFF TQ DELTA'S MOTIONS  
FOR SUMMARY JUDGMENT DIRECTED TO FAMILIES 1 AND 10 (DKT. NO. 347)**



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**TABLE OF EXHIBITS**

<b>Exhibit No.<sup>1</sup></b>	<b>Description</b>
Ex. R	Excerpts of the Responsive Expert Report of Dr. Naofal Al-Dhahir Regarding Family 10
Ex. S	Excerpts of the Responsive Expert Report of Dr. Leonard J. Cimini, Jr. on Infringement of the Family 1 and 4 Patents
Ex. T	Excerpts from the July 7, 2022 Deposition Transcript of Benjamin Miller
Ex. U	Product Documentation for the 5268AC
Ex. V	Excerpts from the G.993.2 (February 2019), Very High Speed Digital Subscriber Line Transceivers 2 (VDSL2)
Ex. W	September 2, 2022 Email – Request to Meet-and-Confer on Invalidity Reports and Elections
Ex. X	Excerpts from the August 25, 2022 Deposition Transcript of Raphael Cassiers
Ex. Y	Excerpts from the Responsive Expert Report of Walter Overby [REDACTED]
Ex. Z	Excerpts from the Opening Expert Report of Todor Cooklev, Ph.D.
Ex. AA	Excerpts from the December 1, 2022 Deposition Transcript of Arthur Brody
Ex. BB	Excerpts from the December 2, 2022 Deposition Transcript of Mark Reid Lanning
Ex. CC	[REDACTED]

<sup>1</sup> This exhibit list is inclusive of all exhibits cited by CommScope in its Response and this Sur-Reply brief.

[REDACTED]

## **I. INTRODUCTION**

TQ Delta's Reply and the evidence cited therein highlight the presence of disputed facts that render summary judgment improper. As to Family 1, TQ Delta and CommScope dispute whether compliance with the standard equates to infringement, and they dispute the underlying facts pertaining to CommScope's products' functionality. As to Family 10, the parties dispute whether the accused products infringe under the Court's claim construction of "operable to," despite TQ Delta's own infringement theories that require the accused functionality to be explicitly enabled in the accused products. In the same vein, TQ Delta seeks to prevent CommScope from putting on its invalidity case with respect to Family 10 based on TQ Delta's self-serving interpretation of CommScope's invalidity expert's deposition testimony. For the reasons set forth herein and in CommScope's Response, TQ Delta's motion for summary judgment should be denied.

## **II. TQ DELTA IS WRONG ABOUT ITS STATEMENT OF UNDISPUTED MATERIAL FACTS**

TQ Delta's statement that "CommScope does not dispute paragraphs 1-2, 17, 18 (in relevant part), 25 or 26" is without moment. Reply at 1. The facts recited in those paragraphs do not impact the ultimate factual issues at play in the present motion. Instead, CommScope denies paragraphs 4-7, 13-16, and 18-24, Resp. at 2-4, which do contain operative facts, and the parties' genuine dispute over those material facts demonstrates that summary judgment is improper.

- TQ Delta does not meaningfully rebut the disputes of fact raised by CommScope's Response as to paragraphs 4-7. Resp. at 2; Reply at 1.
- As to paragraphs 13, 14, 15, and 16, TQ Delta's cited evidence does not support its statement that Dr. Brody's opinions are supported by Broadcom testimony. Specifically, [REDACTED]

[REDACTED] TQ Delta has failed to prove these asserted facts. [REDACTED]

- [REDACTED]
- [REDACTED]
- [REDACTED]
- TQ Delta's Reply does not meaningfully rebut the disputes of fact raised by CommScope's Response as to paragraph 18. Resp at 3; Reply at 1.
  - As to paragraph 19, TQ Delta argues that CommScope provides no contrary opinion or evidence. But no contrary opinion or evidence is needed given that TQ Delta's cited evidence does not establish that [REDACTED]

- [REDACTED]
- As to paragraph 20, TQ Delta argues that CommScope does not explain why it disputes paragraph 20. As with paragraph 19, CommScope disputes paragraph 20 because TQ Delta's cited evidence does not establish that [REDACTED]

- [REDACTED]
- As to paragraphs 21-24, the parties' arguments as to these "facts" highlight the disputes between the parties as to whether [REDACTED]

### III. ARGUMENT

#### A. TQ Delta's Motion for Summary Judgment of Infringement of Family 1 Should Be Denied

In an attempt to mask the many genuine disputes of material fact, TQ Delta's Reply provides

only partial descriptions of Dr. Cimini's expert report and deposition testimony regarding Family 1. For example, TQ Delta attempts to rely on Dr. Cimini's deposition explanation of his noninfringement report as an admission that there is no dispute of material fact. But TQ Delta's partial descriptions fail to acknowledge Dr. Cimini's statements that highlight the existence of a dispute of material fact. Specifically, in describing the claim requirement of "mapping DMT symbols to a bit," Dr. Cimini explicitly testified that "[t]he patent -- the patent itself is not the standard," and he explained that the language of the claims does not equate to the C-RATE modulation scheme described in the standard. Ex. 2 (Cimini Deposition Tr.) at 268:8-16.

Indeed, a complete reading of the parties' briefing, the parties' expert reports, and Dr. Cimini's deposition transcript reveals many disputes of material fact as to whether CommScope's products practice claim 36 of the '686 patent. At least three core disputes are as follows:

Material Fact in Dispute	Exemplary Evidence Demonstrating the Parties' Dispute
1. Whether standard compliance equates to infringement of claim 36.	<b>TQ Delta's View:</b> Ex. D (Brody Op. Rpt.) at ¶ 74: "The G.993.2 DSL standard includes the subject matter of claim 36 of the '686 Patent."
	<b>CommScope's View:</b> Ex. S (Cimini Reb. Rpt.) at ¶ 58: "I disagree with TQ Delta's experts that the Asserted Family 1 and Family 4 Claims read on the mandatory portions of the VDSL2 standard."
2. Whether the language of claim limitation 36[a] aligns with the standard.	<p><b>TQ Delta's View:</b> Ex. D (Brody Op. Rpt.) at ¶ 246: "As a VDSL2 compliant product, the VTU-R transmits the R-PRM-LD message using multicarrier modulation with DMT symbols that are mapped to one bit of the diagnostic message. For example, Clause 12.4.1.1 of G.993.2 specifically requires that all SOC messages during loop diagnostic mode 'be sent using 1 information bit per DMT symbol.'"</p> <p>Ex. 2 (Cimini Dep. Tr. at 282:14-18): "Q. Okay. So isn't [it] fair to say that the way you've written bullet 1 and bullet 3, that bullet 1 can also include where the same bit, the same single bit is being transmitted on multiple DMT symbols? A. Yes, I think so."</p>

Material Fact in Dispute	Exemplary Evidence Demonstrating the Parties' Dispute
	<p><b>CommScope's View:</b> Ex. 2 (Cimini Dep. Tr.) at 268:8-16: "But the patent -- the patent itself is not the standard. So telling me about C rates, you could take -- and it's not just about this. You can take anything and say, look, here's what's in the standard, and then after the fact, you map it to what you think this thing says."</p> <p>Ex. 2 (Cimini Dep. Tr.) at 267:17-268:2: "And the way the wording is, it flips it around and this is a similar one, where this is happening with the symbol, and they're mapped to one bit, but it's -- it's -- the question is, how was that bit mapped to the DMT symbols? Is it -- do you take one bit and it goes with each symbol or do you take many symbols to represent one bit? Do you -- do you understand what -- it's an -- it's how the DMT symbols that are mapped one bit, how is that mapping done to one bit."</p> <p>Ex. S (Cimini Reb. Rpt.) at ¶¶ 84, 85, 87: The standard requires modulation "using 1 information bit per DMT symbol." Ex. V, G.992.3 at 287. In contrast, the claim language requires multicarrier modulation with "DMT symbols that are mapped to one bit of the diagnostic message."</p>
<p>3. Whether Dr. Brody has proved that idle channel noise information, used in the '686 patent, is equivalent to quiet line noise information, used in the standard.</p>	<p><b>TQ Delta's View:</b> Ex. D (Brody Op. Rpt.) at ¶¶ 47, 269, 499: "A POSITA would understand that quiet line noise in the VDSL2 standard is idle channel noise."</p> <p><b>CommScope's View:</b> Ex. D (Brody Op. Rpt.) at ¶¶ 47, 269, 499: Dr. Brody's <i>Alliance for Telecommunications Industry Solutions</i> definition relates to telecommunications, which does not consider technical differences between telecommunications and DSL.</p> <p>Ex. V (G.992.3) at 136: The DSL standard does not consider technical differences between DSL and telecommunications.</p>

These core disputes are just the beginning. TQ Delta's Reply fails to address the myriad of other disputes that CommScope addressed in its Response. *See* Resp. at 6-7. Because there are numerous



[REDACTED]

genuine disputes of material fact, summary judgment should be denied.

**B. TQ Delta’s Motion for Summary Judgment of Infringement of Family 10 Should Be Denied**

TQ Delta’s Motion with respect to Family 10 rests on its attempt to establish that mere capability of implementing an optional feature is sufficient for infringement. TQ Delta has traversed this road before, only for Judge Andrews to disagree and reject the exact same argument. In *TQ Delta, LLC v. Adtran, Inc.*, No. 14-cv-00954-RGA, 2019 U.S. Dist. LEXIS 188640 (D. Del. Oct. 31, 2019), TQ Delta and Adtran filed cross motions for summary judgment with respect to infringement of Family 10. In that case (just like here), TQ Delta alleged that the accused products infringed because “they were ‘capable of’ operating in single latency with ROC mode, in accordance with the VDSL2 Standard.” *Id.* at \*6, \*11. TQ Delta similarly claimed, like it does here, that “it is ‘irrelevant’ that single latency with ROC mode is not turned on when the Accused Products are sold.” *Id.* at \*11. Judge Andrews rejected this argument and held that “operable to” requires *something more* than “capable of” and that mere hypothetical capability of implementing the accused functionally was not sufficient when the ROC mode is optional in the VDSL2 standard, is not turned on, and is not reasonably capable of being reconfigured when the accused products are sold. *Id.* at \*13-14. Because this Court’s construction of the term “operable to” is consistent with Judge Andrews’s construction, and because TQ Delta has presented zero evidence that single latency with ROC mode is *actually* enabled in the accused products, TQ Delta’s crusade to show infringement based on mere hypothetical capability alone fails again here, just like it failed in Delaware. Summary judgment should be denied.

**1. CommScope’s Interpretation of “Operable to” Is Consistent With the Court’s Claim Construction**

While both parties recognize that the Court construed “operable to” to mean “configured to,” the parties disagree as to the effect of the Court’s construction and whether the accused products are

[REDACTED]

operable to implement the accused functionality. But consistent with Judge Andrews’s interpretation, this Court recognized that the plain meaning of “operable to” is narrower than “capable of” (Dkt. 169 at 20) and the two terms should *not* be equated (Tr. at 16:5-12). And despite TQ Delta’s assurances throughout claim construction and the *Markman* hearing that it would not take an abstract view (Dkt. 140 at 2) or include functionality that was not inherent in a product as designed (Tr. at 24:14-20), TQ Delta now seeks summary judgment based on its broad interpretation that “operable to” encompasses mere capability to perform the optional accused functionality in the abstract, irrespective of whether the optional functionality is ever enabled in the Accused Products themselves. This approach is the very scenario that Defendants feared during claim construction, and it fails for at least two reasons.

*First*, this Court made clear that “operable to” refers to being *configured to* operate in the recited manner, which is consistent with Judge Andrews’s interpretation. Dkt. 169 at 20. It is undisputed that single-latency-with-ROC mode is *entirely optional* in the VDSL2 standard. Thus, the accused products are not operable to (*i.e.*, are not configured to) operate in an infringing manner *unless ROC is explicitly enabled*—and TQ Delta provides no evidence at all that ROC is indeed enabled. Just alleging that the Broadcom DSL chipsets allegedly support this *optional* feature (*see* Reply at 5) does not mean that the accused products *actually implement* the optional feature such that they infringe under the Court’s construction.

*Second*, TQ Delta’s own infringement expert opines that Modes 1 and 2, which are the subject of TQ Delta’s Motion, require that the optional ROC mode be *explicitly enabled* in the accused products. *See* Dkt. No. 347 at 14 (“Dr. Brody identified three ways the Accused Products infringe: (1) VDSL2 operation with ROC *explicitly enabled* (Mode 1); (2) VDSL2-G.INP operation with ROC *explicitly enabled* (Mode 2)” (emphasis added)). TQ Delta cannot pursue summary judgment by arguing that it is irrelevant whether ROC mode is enabled when its own infringement theories require the exact opposite. CommScope’s Response highlighted TQ Delta’s contradictory position (*see* Resp.

[REDACTED]

at 10), and TQ Delta's Reply is silent on how to reconcile them. Because TQ Delta's argument for summary judgment (that mere capability alone is sufficient for infringement) directly contradicts its own infringement theories, the Motion should be denied.

## **2. TQ Delta Has Not Established That the Accused Products Infringe**

Because optional ROC mode must be explicitly enabled in the accused products to infringe (per the Court's construction, per TQ Delta's own infringement theories, and per the VDSL2 standard), and because TQ Delta identifies no evidence addressing whether CommScope's products enable or disable the option, TQ Delta has not established that the accused products infringe. TQ Delta relies on testimony of [REDACTED]

[REDACTED] Dkt. No. 347 at SUMF #19. [REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

TQ Delta's citations to CommScope's source code does not support a different conclusion. For instance, TQ Delta points to [REDACTED], but TQ Delta identifies no source code (or any other evidence) showing that the ROC feature is executed in CommScope's source code or otherwise implemented in the accused products. TQ Delta further fails to identify and cite any CommScope source code regarding how the relevant ROC parameters are set.

In sum, TQ Delta seeks summary judgment based on its flawed interpretation of the Court's construction of "operable to," based on its own contradictory theories, and without any evidence that

[REDACTED]

the optional feature it alleges infringes the '354 Patent is actually enabled in the accused products.

**C. TQ Delta's Motion for Summary Judgment of No Invalidity of Family 10 Should Be Denied**

Knowing full well that Family 10 is the only family that Dr. Putnam double counts in his damages analysis, TQ Delta asks this Court not only to enter a finding of infringement but also to prevent CommScope from putting on its invalidity case. The latter request is based on TQ Delta's separate motion to strike Mr. Lanning's Family 10 invalidity report. TQ Delta's motion to strike argues that Mr. Lanning applied an incorrect construction of "SNR margin," despite Mr. Lanning's unequivocal explanations to the contrary. As explained in CommScope's Response and Sur-Reply to that motion, the strategy employed by TQ Delta at Mr. Lanning's deposition demonstrates that regardless of Mr. Lanning's testimony, TQ Delta planned to move to strike his report so that it could move for summary judgment and try to prevent CommScope from putting on its invalidity case. TQ Delta does not point to any testimony inconsistent with the Court's construction. Nor does TQ Delta point to any opinions in Mr. Lanning's report where he contradicted the Court's construction. And in fact Mr. Lanning did not contradict any aspect of this Court's construction. TQ Delta thus lacks any basis for striking any portion of Mr. Lanning's report (much less the entire report), and TQ Delta's request for a judgment of no invalidity therefore should be denied.

**IV. CONCLUSION**

For the reasons set forth above, CommScope respectfully requests that the Court deny TQ Delta's Motion for Summary Judgment as to Families 1 and 10.

Dated this 26th day of January, 2023

Respectfully submitted,

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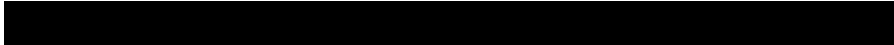
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**CERTIFICATE OF SERVICE**

I hereby certify that a copy of the foregoing document was filed electronically in compliance with Local Rule CV-5(a). Therefore, this document was served on all counsel on January 26, 2023.

/s/ Eric H. Findlay  
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